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THE SIGNIFICANCE OF METHODOLOGICAL PRINCIPLES.[1]

THERE is an evident tendency in contemporary philosophical discussion to regard rationalism as a defunct method. We all recognize the shortcomings of traditional empiricism, and yet, in a sense, we are nearly all empiricists; for we practically agree that philosophy, like physical science, is really from first to last dealing with experience and with nothing else. But the case of rationalism seems wholly different; the high *a priori* road has become a byword, and serious students of the history of philosophy find much difficulty in thinking themselves back to the time when it could be calmly assumed that the order and connection of ideas corresponded in detail to the order and connection of things.

And yet, as a matter of historical fact, rationalism has died strangely hard. Even the cautious Locke, founder as he was of eighteenth century empiricism, was still enough of a rationalist to suggest a deductive treatment of ethics in a line with his own mainly rationalistic conception of mathematical method; while Kant himself, in the very act of transcending rationalism, was so much under the influence of that method that he practically retained the rationalistic conception of truth, with all the limitations that implies. And, strangest of all, in modern scientific methodology we find assumptions made, which, upon inspection, have a surprisingly rationalistic appearance. But of this later.

In order to understand either the original aims or the present significance of rationalism, we must free ourselves to start with from a popular, but strangely persistent, prejudice, viz., the view that rationalism was unscientific, while empiricism was scientific. It is to be remembered that not only were all three of the most prominent early rationalists profoundly interested in contemporary science, but two of the three, Descartes and Leibniz, were themselves scientists of very considerable reputation. As much could hardly be claimed for any one of the three most prominent eighteenth century empiricists, though in his theory of vision Berkeley was, of course, an important contributor to science. This is not intended as the slightest reflection upon empiricism, but merely as a passing reference to known facts. And when we consider the opposed methods themselves, it is only too evident that rationalism and empiricism were equally theories of experience, and that therefore neither could rightfully assume to speak for concrete experience as such. Moreover, as theory of experience, rationalism was quite as much interested in scientific methodology as was empiricism; but the science to which it mainly pinned its faith was mathematics, as was natural, since that was the science at the time most in evidence. It is true, we now agree that rationalism misconceived the nature of mathematical method; but so, for that matter, did empiricism, when it finally faced the problem. Indeed, as already suggested, so convincing was the rationalistic interpretation of mathematical method to contemporary thought, that it was inadvertently adopted in large part by Locke himself.

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[1] Read before the American Philosophical Association, at the Cambridge meeting, December 28, 1905.

It would hardly be worth while, in the brief compass of the present paper, to attempt to dissect out the rationalistic thread that runs through the *Essay concerning Human Understanding*. The case is in no sense peculiar, but rather a typical instance of the difficulty which a pioneer in philosophy nearly always finds in differentiating his own method clearly from the methods employed by his contemporaries. At the same time, it is not to be forgotten that it was partly this very rationalistic tendency, of which Locke himself was doubtless unconscious, that concealed both from himself and from his contemporaries the destructive logical consequences of his method.

We must, however, pause to examine with some care Kant's relation to rationalism, which is much more difficult to define. His often quoted remark that it was Hume who 'woke him from his dogmatic slumber' is seriously misleading, not only because it emphasizes one influence at the expense of others only less important, but because it inevitably suggests that the transition from the 'pre-critical' to the 'critical' period of his thought was at once abrupt and definitive. Such, however, was very far from being the case. On the one hand, Kant's 'dogmatic slumber' seems never to have been a very sound one, while, on the other hand, he cannot be said to have ever escaped from the trammels of rationalism himself, though he doubtless made this possible for his successors. It must never be forgotten that the Inaugural Dissertation of 1770, — commonly counted as the first of the writings of the 'critical' period, since it was here that Kant first developed his characteristic view of the nature of space and time, — was really written from the standpoint of rationalism. His original position seems to have been that, since space and time are subjective, in the sense of being pure forms of intuition belonging to the mind itself, it is most important to take account of this fact, in order that we may allow for it in the attempt to attain a truly objective or rational conception of the nature of ultimate reality.

The *Critique of Pure Reason*, however, did look like the death-blow of rationalism. The very arguments that Kant used in support of the validity of synthetic judgments *a priori* proved conclusively that, if such judgments were to be accepted as valid, they could apply only to the world of possible experience. But, for one starting with his presuppositions, this involved the fatal dualism of appearance and reality, phenomena and things-in-themselves. The whole form of experience is supplied by the mind; hence the pure forms both of intuition and of thought are, in the literal sense, 'constitutive' of experience, — though impotent to tell us one iota with regard to things-in-themselves.

But Kant was anything but a reckless theorist, and he did not relax his grip on reality thus easily. Since moral scepticism was impossible for him, and since, moreover, he was dogmatically certain that our moral experience must be of the real as opposed to any form of appearance, he held that we may postulate of the real, *i. e.*, of things-in-themselves, just so much as is necessary 'for purposes of Practical Reason.' Hence his well-known postulates of Freedom, Immortality, and God, which are treated as 'regulative' principles, as opposed to the 'constitutive' principles of concrete experience. We need to assume these 'regulative' principles 'for purposes of Practical Reason,' therefore we do assume them; their practical necessity is their theoretical justification.[1]

This thoroughgoing distinction between 'constitutive' and 'regulative' principles was, of course, fundamental to the Critical Philosophy as worked out by Kant himself, and we know from his own repeated statements that he regarded the recognition of this distinction as sufficient to put an end forever to the pretensions of dogmatic rationalism. But dogmatism and rationalism were not necessarily bound up together, and the 'critical' method, in its original form, may well be called an imperfectly critical rationalism. As regards the 'constitutive' principles, in so far as they are involved with Kant's own list of categories, frankly derived from the table of logical judgments, this is only too evidently the case. In truth, the older rationalism had only claimed that 'the order and connection of ideas' in some way corresponded to 'the order and connection of things.' Here we have the audacious attempt made to prove that quasi-logical relations actually constitute the form of concrete experience. But, without insisting upon the artificial character of Kant's particular list of categories, which is almost universally acknowledged, it is easy to see that his whole attitude toward the problem was rationalistic. Our knowledge of the organizing functions of experience, *i. e.*, the categories — whatever these may turn out to be — must be obtained, not by actually dealing with experience, but by an abstract logical analysis of experience as such. Only thus can we hope to obtain a list of categories at once systematic and complete.

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[1] It will be noted by the reader that, in the present discussion of Kant's use of 'constitutive' and 'regulative' principles, some liberty has been taken with the philosopher's terminology for the sake of simplification. Even the uncritical reader of Kant will probably have noticed that his use of the terms 'constitutive' and 'regulative' is neither uniform nor consistent. The present writer, however, is by no means insisting upon his own slightly different terminology, but merely employing it to emphasize a distinction which Kant himself is always anxious to make as clear and unambiguous as possible, viz., that between (1) those forms of intuition and functions of thought which, together with the productive imagination, determine the form of concrete experience, and (2) those rational assumptions which, though not implied by experience as such, are nevertheless necessary in order to explain both the moral order and the æsthetic and the teleological judgment. While Kant was certainly wrong in surrendering 'the world of possible experience' to the dominion of the mechanical categories, and therefore relegating morality to the supersensuous sphere, he was as certainly right in refusing to explain morality in terms of such categories. His positive and aggressive use of 'practical postulates' as regulative principles in the *Critique of Practical Reason*, — not to insist upon his more guarded use of analogous principles in the *Critique of Judgment*, — is so much more characteristic than his merely formal employment of the so-called 'regulative' principles in the Dialectic of the *Critique of Pure Reason*, and so much more significant for the development of philosophical methodology, that it has seemed desirable to adopt the terminology used in the text in order to abbreviate the discussion.

It is rather strange that Kant's confidence in his success should have been based upon his wholly justifiable assumption of the organic unity of experience. For, surely, if experience really is an organic whole, no one of its manifold constitutive principles can be understood or explained apart from its relation to all the rest; so the problem, instead of being the abstractly simple one that Kant supposed, plainly involves all the indefinite complexity implied in the very conception of that which is organic. Assuming that the organic character of experience is to be conceived in rational terms, the really 'constitutive' principles of experience must be so indefinitely complex as to require an infinite intelligence to comprehend them. In fact, strictly speaking, 'constitutive *principles*' is a contradiction in terms.

Turning now to the 'regulative' principles employed in the *Critique of Practical Reason*, we seem at length to be forsaking rationalism; for if traditional rationalism professed to do anything, it was to inform us with regard to the nature of reality, and it was precisely for this reason that it was so important to assume that the order and connection of ideas corresponded to the order and connection of things. But philosophical methods have strange vitality; and, in this case, the principles of dogmatic rationalism, even after they were shrunk to the three 'as ifs,' viz., Freedom, Immortality, and God, were still sufficient to form the basis of the most consistently rationalistic system of ethics ever formulated. For, surely, no professed rationalist — of those that have survived in the history of philosophy — ever went to the same lengths in separating reason from feeling and in placing the whole truth and meaning of morality in the supersensuous sphere. After hastily surrendering the goodly realm of 'possible experience' to the dominion of the mechanical categories, Kant claimed nothing less than the absolute nature of reality for the abiding-place of morality, though in this workaday world it might not find place to lay its head. It is true that our knowledge of the ultimate real is 'only for purposes of Practical Reason'; but what looks like a modest disclaimer is really of the very essence of dogmatism, since it means that neither we nor others may understand, but only believe.

Such, then, is the fatal dualism of the Critical Philosophy, if we look to the letter of the system and not to the spirit of the method involved. In the *Critique of Judgment*, of course, Kant made a serious attempt to bring appearance and reality into some intelligible relation; but the ambiguous conception of 'purposiveness without purpose' was by no means equal to the strain put upon it, and this very attempt to transcend the fundamental dualism of the system only made it the more evident. In fact, this last 'as if,' *i. e.*, 'purposiveness without purpose,' pointed rather to the subjective nature of the human mind than to the organic constitution of reality.

But the salvation of the Critical Philosophy — and of modern Idealism as well — lies in the regulative principles after all, futile as these seemed in their original application. Not that a more cautious use of the assumption of 'the primacy of the Practical Reason' can help us out of the speculative difficulties just mentioned. The perfectly justifiable assumption that, if anything has significance in this perplexing world, the moral ideal itself must have significance, by no means warrants us in holding that ultimate speculative difficulties are to be solved by the uncritical application of moral categories. The moral ideal itself must stand or fall with the organic unity of experience. In fact, the hard and fast distinction between Theoretical and Practical Reason is, in the last resort, as artificial as the metaphysical dualism of phenomena and things-in-themselves. If regulative principles have any significance, it is because they are, at least in some degree, essential to the procedure of reason itself, and not because they are convenient in some particular sphere of the employment of reason.

It is strange indeed that it was in his futile attempt to transcend experience that Kant first developed a practical method of dealing with experience. Moral experience, he tells us, is *as if* there were Freedom, Immortality, and God; to explain morality in terms of the mechanical categories is not to explain it at all, but to deny its very existence. We are not here concerned with the validity of this particular argument, but rather with the validity of the method involved. In dealing with experience, then, from the point of view of any science or discipline, — and plainly we can deal with nothing but experience, — our only justification for making any assumptions whatever, is that they promise to be practically helpful in organizing our knowledge; and the truth of these assumptions is precisely in proportion as they do thus enable us to deal effectively with experience, regarded from a particular point of view. Hence the ultimate justification of the nebular hypothesis, the principle of the conservation of energy, the theory of organic evolution, or whatever postulates we may finally adopt to explain the moral or religious experience, will be precisely the same, viz., that they enable us to think clearly and act efficiently, — and thought and action are, of course, in the last resort, not two things, but one.

But does this mean that we begin and end with 'as ifs,' even though these be not merely 'for purposes of Practical Reason,' but for all purposes whatever? I shall not urge that this would be a comfortless doctrine, for the comfortableness of 'the will to believe' has, as it seems to me, been unduly emphasized. We are here concerned not with edification, but with truth. The question, then, is: In what relation do these methodological postulates, these 'as ifs,' stand to reality? If reality is beyond and apart from experience, we have little enough reason to assume that they stand in any relation to reality at all. But this is an academical problem; for, in spite of our healthy differences of opinion, we are practically agreed that experience and reality are the same. Granting, then, that we have to do with experience alone, what do these principles mean in terms of experience?

The sophisticated scientist is inclined to be very non-committal at present, having come to realize that science has been recklessly ontologizing in time past. That science, the exponent of experience, should have reduced experience to non-experiential terms, and claimed that such was the very nature of objective reality, is, indeed, a matter to suggest caution. In truth, our sophisticated scientist now goes to the other extreme, and tells us that any developed science is a symbolic affair, admirably adapted for dealing with experience, regarded from a particular, abstract point of view, but not professing to inform us in the slightest degree as to the true nature of reality. Now the sophisticated scientist may not be a philosopher, but he certainly is contributing his fair share of philosophical problems. What, then, do his methodological principles mean?

In the first place, they would not be really methodological or truly regulative, unless they had some very definite relation to the nature of experience itself, which we have agreed to equate with reality. Yet the relation is a perplexing one, for, as is often remarked, science becomes progressively abstract, while experience remains concrete. We ask for reality, and the scientist gives us symbols and ratios. But the case is not so hopeless as it looks. All unconsciously, the scientist is the true rationalist of modern times, who boldly assumes that 'the order and connection of ideas'—though not strictly corresponding to 'the order and connection of things'—yet affords an instrument for dealing with this order and connection of things, no matter how indefinitely complicated. And he has the advantage of his dogmatic predecessors, for he has proved to his own satisfaction, and to our admiration, that rationalism works.

How, then, once more, is this possible? It is too late in the day to assume 'preëstablished harmony,' even as a methodological postulate. Our conceptual dealing with reality *must* throw some light upon the constitution of reality itself. Shall we, then, after all, resort to Kant's conception of 'constitutive' principles? Shall we say that the 'regulative' principles of science and philosophy, while, of course, not strictly corresponding to the 'constitutive' principles of experience, nevertheless tend more and more to approximate to these with the development of the sciences or disciplines in question? In a certain sense, yes; but what *are* these 'constitutive' principles? It would be ridiculous to assume that the instrumental or regulative principles of recent science or philosophy, representing, as these do, the net result of the intellectual coöperation of centuries, are to be tested by their correspondence with the 'constitutive' principles set forth by Kant or even by Hegel. For are not those 'constitutive' principles themselves precisely 'regulative,' in the sense in which we have used the term 'regulative'?

We seem, then, to be forced to this discouraging conclusion, that 'regulative' principles can have no really philosophical justification except in so far as they presuppose, and in some sense correspond to, the 'constitutive' principles of experience; and yet, from the very nature of the case, these 'constitutive' principles can never be formulated. As finite beings, we can only formulate general principles; and no multiplication or concatenation of general principles can exhaust concrete experience. In truth, as science and philosophy advance, these principles become more and more abstract and schematic, and so seem to take us further and further from the reality of immediate experience.

Thus regarded, the problem is, indeed, not only difficult in the extreme, but insoluble. But the very existence of such a problem is a striking evidence of the persistence of rationalism even in recent thought. We demand of our scientific and philosophical categories or methodological principles that they shall directly, and, as it were, intuitively, inform us as to the nature of reality. Failing this, they are held to have only an abstract and schematic significance, and we perhaps take refuge in the conception of 'absolute experience,'—which, alas, though professing to be concrete, is more abstract still.

If, however, we drop this rationalistic conception of truth altogether, and realize that our methodological principles are meaningless except in their functional relation to concrete experience, the problem takes on a very different aspect. Every permanently helpful methodological principle, whether of science or of philosophy, does inform us with regard to the nature of experience or reality, and this in proportion as it tends to organize our knowledge and thus enable us to deal efficiently with experience;

and, as each science or discipline becomes rationalized into a coherent system, by virtue of some unifying principle like that of the conservation of energy or organic evolution, we shall more and more be able to appreciate, from different points of view, the organic character of experience. Our particular laws of nature will not become less abstract in their formulation, and they will remain, as they should, 'hypothetical universals'; but every such law, as Professor Bosanquet has pointed out, must be understood as implying: 'The real is such that' — the formula in question holds.[1] Moreover, the formula itself will lose much of its abstract character, when we learn to think of it always in terms of the functional application to experience which alone gives it significance. We begin, then, with concrete experience, and we never forsake it, so long as our methodological principles are really helpful in our theoretical and practical dealing with experience. And it is not merely knowledge that is progressively organized, but experience itself, which involves implicit interpretation from beginning to end.

But can such knowledge claim ultimate validity? Is there a known goal to which it can forever approximate? This brings us to consider in closing the one ultimate methodological principle which implicitly underlies the whole procedure of science and philosophy, viz., the inevitable assumption of the organic unity and immanent rationality of the world. If this also seem like an abstract conception, let us remember that it points out the only intelligible way in which we can conceive the concrete itself in its totality. It may be called an ideal, and such it is; but it nevertheless represents the unifying and energizing principle of all that we have a right to call real. Professor Santayana has recently reminded us that reality itself has 'an ideal dimension,' and the phrase is a happy one; but we may go much further than this, and hold that the concrete ideal, — the world as a unique system, of which all particular methodological principles are functional expressions, — is the true and ultimate real.

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[1] *Logic, or The Morphology of Knowledge*, Vol. I, p. 282. *Cf.* p. 290, where Professor Bosanquet holds that, in so far as hypothetical judgments are made, "they must rest upon, and involve the affirmation of, properties of reality."